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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,830	04/09/2004	Bradford C. Stahl	4556	1397

7590 07/14/2005

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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary

Application No.

10/821,830

Applicant(s)

STAHL, BRADFORD C.

Examiner

Christopher Verdier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-9-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Specification

The disclosure is objected to because of the following informality: Appropriate correction is required.

On page 1, line 28, “the” (first occurrence) should be changed to -- The --.

The specification is objected to as being inaccurate. Page 2, line 19, page 5, lines 4, 14-15, and 19, page 6, line 30, and the abstract, line 6, refer to a “solid aluminum core”. This is inaccurate, because the core 202, for example, has a bore 206 and is not solid. It is suggested that the term “solid” be removed in all of the above occurrences. Additionally, the specification (page 8, lines 23-25) states that during use, the exhaust gases do not mix with any water contacting and being driven by the first or second set of replaceable propeller blades. This is inaccurate, because as seen in figures 4A and 4B, the exhaust gases are conducted through the outlet nozzle 442 and will mix with water that contacts and is driven by the first set of propeller blades 418-420 and the second set of propeller blades 430-432, downstream of the nozzle. It is suggested that page 8, lines 23-25 of the specification be deleted.

Claim Objections

Claim 2 is objected to because of the following informality: Appropriate correction is required.

In claim 2, line 2, -- extending -- should be inserted after “bore”.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, lines 2-3 recite "a solid aluminum core". This is inaccurate, because the core 202, for example, has a bore 206 and is not solid. Claim 6, last three lines recite that "during use said exhaust gases do not mix with any water contacting and being driven by the first or second set of replaceable propeller blades." This is inaccurate, because as seen in figures 4A and 4B, the exhaust gases are conducted through the outlet nozzle 442 and will mix with water that contacts and is driven by the first set of propeller blades 418-420 and the second set of propeller blades 430-432, downstream of the nozzle. It is suggested that page 8, lines 23-25 of the specification be deleted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6, as far as it is understood and is definite, is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodskier 5,423,701 in view of Stahl 4,930,987. Rodskier discloses a

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modular counter rotating propeller system substantially as claimed, comprising a front center hub 8 for mounting on a rotating engine driveshaft 2, a rear center hub 9 for mounting on a counter-rotating engine driveshaft 3 coaxial to the rotating engine driveshaft and aft of the front center hub, a first set of propeller blades 6 associated with the front center hub, a second set of propeller blades 7 associated with the rear center hub, with a first set of chambers 16 disposed in the front center hub for receiving exhaust gases from an engine associated with the rotating and counter-rotating engine driveshafts, and for conducting the exhaust gases aft, and a second set of chambers 16' disposed in the rear center hub for receiving exhaust gases from the first set of chambers, and for conducting the exhaust gases out aft.

However, Rodskier does not disclose that the front center hub has a first set of propeller blade receptacles, with the rear center hub having a second set of propeller blade receptacles, with a first set of replaceable propeller blades with plug-in bases that slip into and interlock with corresponding slots in the front center hub, and a second set of replaceable propeller blades with plug-in bases that slip into and interlock with corresponding slots in the rear center hub, with a first set of chambers disposed in the bases of the first set of replaceable propeller blades for receiving exhaust gases from the engine associated with the rotating and counter-rotating driveshafts, and for conducting the exhaust gases aft, and a second set of chambers disposed in the bases of the second set of replaceable propeller blades for receiving exhaust gases from the first set of chambers, and for conducting the exhaust gases aft.

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Stahl shows a propeller having a front center hub 14 that has a first set of propeller blade receptacles 26, with a first set of replaceable propeller blades 36 with plug-in bases 38 that slip into and interlock with corresponding slots 28, 30 in the front center hub, with a first set of chambers 40 disposed in the bases of the first set of replaceable propeller blades for receiving exhaust gases from an engine associated with a driveshaft 4, and for conducting the exhaust gases aft, for the purpose of providing a low cost propeller with individually replaceable blades, and allowing exhaust gas venting from the engine through the blade bases.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to replace the front center hub 8 and propeller blades 6 and the rear center hub 9 and propeller blades 7 of Rodskier, each with the propeller of Stahl, for the purpose of providing a low cost propeller with individually replaceable blades, and allowing exhaust gas venting from the engine through the blade bases.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ogino '313 and '698, and Iriono are cited to show counter-rotating propellers with exhaust gas passages.

Henrich is cited to show a propeller with ribs and exhaust gas passages.

DenHerder is cited to show a modular propeller.

Holtermann is cited to show a propeller with a rear nozzle ring.

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Van der Woude is cited to show a propeller with exhaust gas passages.

Soviet Union Patent 1,093,619 is cited to show a propeller with shortened splines.

Allowable Subject Matter

Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

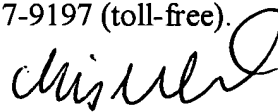
Claims 2-5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.
July 9, 2005


Christopher Verdier
Primary Examiner
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